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SOURCE Documentary as indicated. (Information specifically requested.)

RECENTLY PUBLISHED RESEARCH OF THE
MOSCOW INSTITUTE OF EXPERIMENTAL ENDOCRINOLOGY, USSR

"Iron-Ascorbic Acid in Animal Tissues," B. I.
Gol'dshteyn, D. V. Vol'kensson, Inst Exptl Endocrinol,
Moscow

"Biokhimiya" Vol 12, 1947, pp 85-96

It had previously been determined that there exists in animal tissues not only free, reduced ascorbic acid, but also ascorbic acid combined with proteins with the aid of mineral, or so-called easily dissociated Fe. The part of the protein to which Fe-ascorbic acid (I) is attached is the nucleic acid. Only minute amounts of I are found in the cytoplasmic nucleic acid from malignant tumors. The thyroid hormone is capable of transforming the free ascorbic acid of tissues into I.

"Changes of Sulfur-Containing Amino Acids Within the Protein Molecule, and the Influence of Thyroid Hormone," B. I. Gol'dshteyn, M. B. Gintsburg, E. A. Kolli, E. Yu. Mil'gram, O. S. Sklovskaya, Inst Exptl Endocrinol, Moscow

"Biokhimiya" Vol 11, 1946, pp 447-70

Changes in the SH groups and S-containing amino acids in the muscle protein myosin were studied. During the

- 1 -

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prolonged extraction of myosin, some ATP always disappeared from the extract. The addition of ATP lowered the SH content of myosin. It is postulated that during the enzymic hydrolysis of ATP there takes place a perpetual transfer (oscillation) of the S atom from one peptide chain to the other, thus producing the first phase of muscular contraction. The amount of free SH groups in myosin and heparosin increased during experimental hyperthyroidism. This suggests that the thyroid hormone ruptures the thio ether linkages in proteins. The SH groups that are thereby formed are then oxidised.

"Action of Synthotic Estrogenic Substances on the Anterior Lobe of the Hypophysis," E. B. Pavlova, Inst Exper Endocrinol, Moscow

"Byull Eksp Biol i Med" Vol 19, No 6, 1945, pp 63-7

Experiments with castrated rats prove that synthetic estrogenic compounds (structure unrelated to that of natural sex hormones) do not differ from the natural female sex hormones in their ability to prevent the appearance of post-castration changes in the hypophysis, and to remove these changes if already present. Like estrone, the synthetic sex hormones stimulate in infantile female rats the formation of the luteinizing hormone.

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- 2 -

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